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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/074,808	02/14/2002	Kai Lu		7068

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EXAMINER	
DUONG, DUC T	

ART UNIT	PAPER NUMBER
2616	

DATE MAILED: 04/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/074,808	LU, KAI	
	Examiner	Art Unit	
	Duc T. Duong	2663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 February 2002*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3 and 6* is/are rejected.

7)☒ Claim(s) *4 and 5* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because it contains more than 250 words. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1 and 2 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, the claim defines both a method and an apparatus. Each claim as a whole is neither a definition of a method nor of an apparatus but is instead a hybrid of the two; it, therefore, does not define the invention in the manner contemplated by the second sentence of 35 U.S.C. Sec. 112 (see In re Oakley, 1935 C.D. 198, 454 O.G. 536, 73 F.2d 934, 24 USPQ 75).

Claim 1 recites the limitation "the base" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 2 recite the limitations "the first level" in line 3, "the second level" on line 7, and "the third level" on line 12. There is insufficient antecedent basis for these limitations in the claim.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-3 and 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuchiya (US Patent 5,353,283) in view of Zhang (US Patent 6,845,094 B1).

Regarding to claims 1 and 6, Tsuchiya discloses a multilevel hierarchical addressing and routing mechanism for high-speed Internet, the mechanism comprising a multilevel hierarchical view of the Internet (fig. 1 col. 1 lines 24-42; noted the Internet is in hierarchy structure with the top level being the backbone network, the next lower level being the sub-network, follow by the local node), which is the base for grouping the IP address into short, fixed-length blocks (fig. 4 col. 2 lines 31-32); a grouping of the IP address into short, fixed-length blocks based on the multilevel hierarchical view of the Internet, so that a short, fixed-length block of the IP address can be used as an index to an entry in the routing table (fig. 4 col. 2 lines 32-38; noted the IP address is grouped in a hierarchal structure with portion of the address containing the network of the node, the address of the sub-network of the node, and the address of the node itself); an address assignment to all Internet routers based on the multilevel hierarchical view of the Internet (fig. 5 col. 2 lines 63-67 and col. 3 lines 1-3); a hierarchical method for an Internet router to make its packet forwarding decision based on a block of the IP address (col. 3 lines 4-14).

Tsuchiya fails to discloses an address translator at the edge of an institution's network to translate between new and old IP addresses after this institution switched to a new ISP and got a new set of IP addresses from the new ISP.

However, Zhang discloses a communication system having an address translator for mapping the old IP addresses to the new IP addresses (col. 7 lines 40-65).

Thus, it would have been obvious to a person of ordinary skill in the art to employ an address translator as taught by Zhang in Tsuchiya's system to provides a dynamic IP address assignment.

Regarding to claim 2, Tsuchiya discloses the multilevel hierarchical view of the Internet via pick a connected group of Internet routers and assign them to the first level, called the first level routers, the number of routers at the first level depends on the Internet topology and how many levels we want to create (fig. 1 col. 1 lines 24-50; noted the first level routers are routers resided in the backbone networks, such as router e, f, g in backbone network A) and among the rest of the routers, those directly connected to one of the first level routers belong to the second level, called the second level routers, depending on the Internet topology and how many levels we want to create, the second level can further include some routers that are directly connected to a router that is already in the second level (fig. 1 col. 1 lines 24-50; noted the second level routers are router resided in the sub-networks, such routers c and w in sub-networks I). But, Tsuchiya fails to teach among the rest of the routers, those directly connected to one of the second level routers belong to the third level, called the third level routers, again depending on the Internet topology and how many levels we want to create, the third

level can further include some routers that are directly connected to a router that is already in the third level and continue this procedure until no more routers are left. However, to arrange for a third level routers and other levels beyond would have been obvious to a person of ordinary skill in the art since such arrangement would depend on the network topology and design of choices, thus constitutes no new inventive concept.

Regarding to claim 3, Tsuchiya discloses the grouping of the IP address into short, fixed-length blocks based on the multilevel hierarchical view of the Internet can be done as follows, if there are n levels in said the multilevel hierarchical view of the Internet, we will group the IP address into n+1 blocks, from left to right, the first block is corresponding to the first level of said the multilevel hierarchical view of the Internet, called the first level address, the second block is corresponding to the second level of said the multilevel hierarchical view of the Internet, called the second level address, and so on, the last block is called the interface number; the length of each block is chosen based on the number of routers in the corresponding level of said the multilevel hierarchical view of the Internet and the potential growth of that level (fig. 4 col. 2 lines 32-38; noted the grouping of address is hierarchy structure with the first level address is the network address, the second level address is the sub-network address, and last block is the host address).

Allowable Subject Matter

6. Claims 4 and 5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc T. Duong whose telephone number is 571-272-3122. The examiner can normally be reached on M-F (9:00 AM-6:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D. Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DD
DD

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